

I. Purpose & Compliance

The purpose of this document is to establish guidelines for installing small cell equipment, poles, and appurtenances in the City of Lowell right-of-way (“ROW”). Numerous wireless providers and wireless infrastructure companies have been contacting the City of Lowell with requests to locate small cell facilities in the public right of way (“ROW”). These low-powered antennas provide cellular and data coverage to supplement the provider’s cellular network. New small cell towers will improve the provider’s ability to meet current and future cellular needs. These design guidelines (“Guidelines”) provide aesthetic requirements and specifications that all small cell towers installed within the public ROW must meet prior to the installation in the City of Lowell.

In order to protect the public health, safety, and welfare of its citizens and to reasonably manage and protect the public rights-of-way (“ROW”) and its uses in the City of Lowell (“City”), it is in the best interest of the City and its residents and businesses to establish small wireless facility design guidelines (“Guidelines”) to provide the aesthetic requirements and other specifications and reasonable conditions that small wireless facilities and wireless support structures installed within the public ROW must meet prior to and following installation.

Placement or modification of a small wireless facilities and/or wireless support structures shall comply with these Guidelines at the time the permit for installation or modification is approved and as amended from time to time. Wireless service providers and permittees are required to comply with City of Lowell Code of Ordinances and other applicable laws and regulations.

II. Application Requirements

These Guidelines apply to requests to locate small wireless facilities in the ROW and ongoing use of the ROW for such purposes. These Guidelines are administered through the permitting process contained therein as conducted by the City’s Division of Development Services/Department of Planning and Development, City’s Engineer Office/Department of Public Works, and the City Manager’s Office.

Prior to placing, installing, modifying, relocating, or removing a small wireless facility or wireless support structure in the ROW, or to collocating a wireless facility on an existing wireless support structure in the ROW, the operator shall apply for and receive a permit from the City. Prior to submitting a permit application, the pole owner shall ensure the supporting poles are appropriately sized and have sufficient strength to accommodate the additional small cell equipment loads. The small cell equipment loads shall be provided by the network provider.

In addition to the application requirements established in Section 7.6 of the Lowell Zoning Ordinance and other applicable laws and regulations, information identified in this Section III must be included for the application to be considered complete. The City may require additional information as reasonably as necessary to evaluate the application and the impact of the proposed installation (s) on the public health, safety, and welfare or on use or management of the ROW.

a. Proof of agent designation

If the applicant is serving as an agent of a small wireless operator, the applicant must provide written documentation of the agent designation signed by the operator.

b. Map

The applicant must include an aerial map showing the location of the proposed or existing support structure to which the small wireless facility is proposed to be attached, or from which a small wireless facility is proposed to be removed or replaced.

c. Photo simulations

For all applications to locate small wireless facilities in the ROW, the applicant shall provide photo simulations from at least two reasonable line-of-site locations near the proposed project site. The photo simulations must be taken from the viewpoints of the greatest pedestrian or vehicular traffic.

d. Consolidated applications

An applicant seeking to construct, modify, collocate or replace more than one small wireless facility or more than one wireless support structure within the City's ROW may file a consolidated application for multiple small wireless facility requests or wireless support structure requests provided the requests grouped on a consolidated application only address substantially the same type of small wireless facilities or substantially the same type of wireless support structures. (Note: The City may treat each request individually during application review and processing and when issuing a determination or applying these guidelines.)

e. Site and other plans and structural calculations

The applicant must include fully dimensioned site plans, elevation drawings and structural calculations that depict any known existing wireless facilities with all existing transmission equipment and other improvements, the proposed facility

with all proposed transmission equipment and other improvements, and the legal boundaries of the existing right-of-way and any associated access and utility easements. Fully dimensioned site plans shall indicate the spacing from existing curb, driveways, sidewalks, light poles and any other poles or appurtenances.

f. A non-ionizing radiation electromagnetic radiation report (NIER)

A non-ionizing radiation electromagnetic radiation report (NIER) shall be submitted to the pole owner and retained on file for equipment type and model. The NIER report shall be endorsed by an RF PE licensed in the State of Massachusetts. It shall specify minimum approach distances to the general public as well as electrical and communication works that are not trained for working in an RF environment (uncontrolled) when accessing the pole by climbing or bucket. All installations shall meet or exceed all applicable structural standards, clearance standards, and provisions of the latest National Electrical Safety Code (NESC), or applicable City of Lowell construction standards. In case of conflict, the most stringent requirements shall prevail. All necessary permits shall be obtained by the wireless carrier owner and provided to the pole owner and the City of Lowell.

g. Number and dimensions of facilities and/or structures to be installed

The applicant must include a full description of the number and dimensions of all small wireless facilities proposed to be installed and the wireless support structure, either new or existing, to be utilized for each small wireless facility. For all equipment proposed to be installed, the applicant must include: (1) the manufacturer's name and model number; (2) physical dimensions, including without limitation, height, width, depth and weight with mounts and other necessary hardware; and (3) the ambient noise level generated from the equipment, if any.

h. Owner's Authorization

For any application to attach a small wireless facility to a wireless support structure that is not owned by the City, the applicant must submit evidence sufficient to show that either: (1) applicant owns the proposed support structure; or (2) applicant has obtained the owner's written authorization to file the application.

III. Aesthetic Requirements

All cables, wires, and connectors related to the small wireless facility must be fully concealed on the wireless support structure and shall match the color of the wireless support structure. There shall be no external cables and wires related to the small wireless facility hanging off or otherwise exposed on the wireless support structure.

All colors shall match the background of any wireless support structure that the facilities are located upon, including equipment cabinets.

Equipment enclosures, including electric meters, shall be as small as possible. Ground-mounted equipment shall incorporate concealment elements into the proposed design matching color and materials of the wireless support structure, unless other materials or colors are approved by the City.

Radio equipment shall be fully enclosed within an equipment cabinet or concealed within the antenna shroud enclosure matching the color and materials of the wireless support structure, unless other materials or colors are approved by the City.

Landscaping concealing equipment enclosures shall be planted in such quantity and size such that 100% screening is achieved within two-years of installation.

Signage: the small wireless facility permittee shall post its name, location, identifying information, and emergency telephone number in an area on the cabinet of the small wireless facility that is visible to the public. Signage required under this section shall not exceed 3 inches by 4 inches, unless otherwise required by law (e.g. radio-frequency (RF) ground notification signs) or the City. If no cabinet exists, the signage shall be placed on the base of the pole.

Lights: new small wireless facilities and wireless support structures shall not be illuminated, except in accord with state or federal regulations, or unless illumination is integral to the camouflaging strategy such as design intended to look like a street light pole.

Logo/Decals: the small wireless facility operator/permittee shall remove or paint over unnecessary equipment manufacturer decals. The color shall match or shall be as approved by the City.

IV. Location Requirements

a. Most preferable locations

The following are the most preferred areas for new small wireless facilities in the order of preference:

- i.** Industrial Districts if not adjacent to a park, residential district or historic district.
- ii.** Highway Rights of Way areas if not adjacent to a park, residential district, or historic district.

- iii. Retail and Commercial Districts if not adjacent to a park, residential district or historic district.

b. Collocation preference

It is the City's strong preference that whenever an applicant proposes to place a new small wireless facility that the applicant collocate the same on existing wireless support structures.

c. Least preferable locations

The following are the least preferred areas for new small wireless facilities:

- i. Residential Districts
- ii. Parks
- iii. Historic Districts

d. Consideration of alternate locations

The City reserves the right to propose an alternate location for a small wireless facility and/or wireless support structure to the location proposed in the application within one hundred feet of the proposed location or within a distance that is equivalent to the width of the ROW in or on which the small wireless facility and/or wireless support structure is proposed, whichever is greater, which the operator shall use if it has the right to use the alternate location on reasonable terms and conditions and the alternate location does not impose technical limits or additional costs.

e. Placement guidelines

The City desires to promote cleanly organized and streamlined facilities using the smallest and least intrusive means available to provide wireless services to the community. Generally, a small wireless facility and/or wireless support structure shall match and be consistent with the materials and finish of the wireless support structure, adjacent City poles, and of the surrounding area adjacent to their location. In the absence of adjacent City poles, the wireless support structure shall match the materials and finish of the adjacent utility poles.

The following additional guidelines on placement shall apply:

Small wireless facilities and wireless support structures shall be located in a manner that does not impede, obstruct, or hinder usual public pedestrian or vehicular travel or public safety on a ROW.

Small wireless facilities and wireless support structures shall be located in a manner that does not obstruct the legal use of a ROW by a utility provider.

Small wireless facilities and wireless support structures shall be located in a manner that does not violate or conflict with the City Code of Ordinances, applicable laws and regulations, or these Guidelines.

Small wireless facilities and wireless support structures shall be located in a manner that does not violate the federal Americans with Disabilities Act.

Small wireless facilities and wireless support structures shall be located in a manner that does not negatively impact the structural integrity of the associated wireless support structure.

Small wireless facilities and wireless support structures shall be located in alignment with existing trees, utility poles, and streetlights.

Small wireless facilities and wireless support structures shall be located with appropriate clearance from existing utilities.

Small wireless facilities and wireless support structures shall be located so as not to be located along the frontage of any building deemed to be of historic significance on a federal, state, or local level.

Small wireless facilities and wireless support structures shall be located not within sight triangles at street intersections.

New wireless support structures shall not be located directly in front of any existing residential, commercial or industrial structure.

To the greatest extent possible, new wireless support structures shall be located in line with existing lot lines or equidistance from any two existing structures. In areas of the City where multiple structures abut each other and/or where no side lot setback requirements exist, new wireless support structures shall not be located directly in front of an entrance or window of any existing structure.

Tree “topping” or the improper pruning of trees is prohibited. Any proposed pruning or removal of trees, shrubs, or other landscaping already existing in the ROW must be noted in the application and must be approved by the City.

I. Limitations

While the City fully intends to apply the Guidelines established in this policy uniformly to all small wireless facility applications, there may be circumstances

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where not every specific guideline may be met. In these cases, City staff will use its reasonable discretion in approving small wireless facilities permit applications that deviate from the strict application of this policy.